Name:

Exam Style Questions

# Simultaneous Equations

Corbettmaths

Ensure you have: Pencil, pen, ruler, protractor, pair of compasses and eraser

You may use tracing paper if needed

**Guidance**

1. Read each question carefully before you begin answering it.
2. Don't spend too long on one question.
3. Attempt every question.
4. Check your answers seem right.
5. Always show your workings

Revision for this topic

www.corbettmaths.com/contents

Video 295

Video 296

1. Solve the simultaneous equations

$$5x + 3y = 41$$
$$2x + 3y = 20$$

Do not use trial and improvement

x = ........................ y = ..........................

**(3)**

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2. Solve the simultaneous equations

$$5x + y = 11$$
$$3x - y = 9$$

Do not use trial and improvement

x = ........................ y = ..........................

**(3)**

3. Solve the simultaneous equations

$$x + 7y = 64$$
$$x + 3y = 28$$

Do not use trial and improvement

x = ........................ y = ..........................
**(3)**

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4. Solve the simultaneous equations

$$4x - 4y = 24$$
$$x - 4y = 3$$

Do not use trial and improvement

x = ........................ y = ..........................
**(3)**

5. Solve the simultaneous equations

$$2x + 4y = 14$$
$$4x - 4y = 4$$

Do not use trial and improvement

x = ........................ y = ..........................

**(3)**

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6. David buys 2 DVDs and 2 CDs in a shop and in total they cost £18.
Ellie buys 3 DVDs and 2 CDs in the same shop and they cost £22.

Form two equations and solve to find the cost of each DVD and each CD.

DVD = £........................ CD = £.........................

**(4)**

7. Solve the simultaneous equations

$$2x + 4y = 26$$
$$3x - y = 4$$

Do not use trial and improvement

x = ........................ y = ..........................

**(3)**

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8. Solve the simultaneous equations

$$3x + 2y = 16$$
$$2x - 3y = 2$$

Do not use trial and improvement

x = ........................ y = ..........................

**(4)**

9. Solve the simultaneous equations

$$3x - 2y = 14$$
$$x + 2y = 10$$

Do not use trial and improvement

x = ........................ y = ..........................

**(3)**

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10. Solve the simultaneous equations

$$3x + 5y = 1$$
$$2x - 3y = 7$$

Do not use trial and improvement

x = ........................ y = ..........................

**(4)**

11. Solve the simultaneous equations

$$3x - y = 23$$
$$2x + 3y = 8$$

Do not use trial and improvement

x = ........................ y = ..........................

**(3)**

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12. Solve the simultaneous equations

$$2y - 5x = 9$$
$$4y + 3x = 5$$

Do not use trial and improvement

x = ........................ y = ..........................

**(3)**

13. Find the coordinates where the straight lines below cross.

$y - 3x = 3$
$x - 2y = 4$

(.................... , .....................)
**(4)**

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14. Solve the simultaneous equations

$3a + c = 8$
$2a - c = 7$

Do not use trial and improvement

a = ......................... c = ..........................
**(3)**

15. Solve the simultaneous equations

$$4x + 3y = 5$$
$$2x - 5y = 9$$

Do not use trial and improvement

x = ........................ y = ..........................

**(4)**

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16. Solve the simultaneous equations

$$2y = x + 10$$
$$y = 2x - 7$$

Do not use trial and improvement

x = ........................ y = ..........................

**(3)**

17. Solve the simultaneous equations

$$4x - y = 17$$
$$y = x - 2$$

Do not use trial and improvement

x = ........................ y = .........................

**(3)**

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18. Alan and Connor have £6.70 in total.
Alan has £1.70 more than Connor.

Let a be the amount of money Alan has.
Let c be the amount of money Connor has.

Set up a pair of simultaneous equations and solve to find out how much each person has.

Alan = ........................ Connor = .........................

**(3)**

19. Three bananas and two pears cost 95p.
Five bananas and three pears cost £1.51

Find the cost of ten bananas and ten pears.

..........................
**(4)**

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20. Solve the simultaneous equations

$$5x + 2y = -34$$
$$4x - 3y = -41$$

Do not use trial and improvement

x = ......................... y = ..........................
**(4)**